

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Group Art Unit: Unknown
)	
Peter J. Hopper et al.)	Examiner: Unknown
)	
Application No. New)	INFORMATION DISCLOSURE
)	<u>STATEMENT</u>
Filed: Herewith)	
)	
For: METHOD OF FORMING)	
THROUGH-THE-WAFER METAL)	
INTERCONNECT STRUCTURES)	
)	
)	

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith information of which applicants are aware, which applicants believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

- (a) ☒ accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits.

(d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

(e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by the fee (\$180) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) are checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

(f) ☐ Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

(g) ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publications(s) is set forth on the attached Form PTO-1449 (Modified). A copy of the items on PTO-1449 (Modified) is supplied herewith:

(h) ☒ each (i) ☐ none (j) ☐ only those listed below:

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form PTO-1449 (Modified) are not supplied because they were previously cited by or submitted to the Office in a prior application no. _____ filed _____ and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the described above and attached information is:

(k) ☒ not given

(l) ☐ given for each listed item

(m) ☐ given for only non-English language listed item(s) [Required]

(n) ☐ is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

While the information disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that the

information referred to is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the above-described and attached information.

Respectfully submitted,

Dated: 12-4-03

By: Mark C. Pickering
Mark C. Pickering
Reg. No. 36,239

Attorney for Assignee

Atty. Docket No: 100-23800 (P05751)

P.O. Box 300
Petaluma, CA 94953-0300
Direct Telephone: (707) 762-5583
Main Telephone: (707) 762-5500
Facsimile: (707) 762-5504
Customer No. 33402

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>	Docket Number (Optional) 100-23800 (P05751)	Application Number New
	Applicant(s) Peter J. Hopper et al.	
	Filing Date Herewith	Group Art Unit Unkn wn

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		U.S. Appln. 10/004,977		Yegnashankaran et al.			12/03/01
		5,530,552	06/25/96	Mermagen et al.	356	401	12/28/94
		4,782,028	11/01/88	Farrier et al.	437	3	08/27/87
		3,937,579	02/10/76	Schmidt	356	144	11/15/73
		5,608,237	03/04/97	Aizawa et al.	257	132	03/13/95
		3,928,093	12/23/75	van Tangerloo et al.	148	186	06/03/74
		6,010,951	01/04/00	Pushpala et al.	438	458	04/04/98
		4,189,820	02/26/80	Slack	29	425	02/21/78
		4,261,781	04/14/81	Edmonds et al.	156	254	01/31/79
		5,142,756	09/01/92	Ibaraki et al.	29	25.01	10/19/90
		5,240,882	08/31/93	Satoh et al.	437	226	07/28/92

FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	64-19729	01-23-89	Japan	H01L	21/304		✓

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

		U. Simu et al., "Limits in Micro Replication of CVD Diamond By Moulding Technique", 1997, [online], [retrieved on 2003-11-16]. Retrieved from the Internet: <URL:http://www.angstrom.uu.se/solidstatephysics/joakim/limits.pdf>. pp. 1-11, (note page 5, column 2, lines 15-23).
		E. Hui et al., "Carbonized Parylene as a Conformal Sacrificial Layer", [online], [retrieved on 2003-11-16]. Retrieved from the Internet: <URL:http://www.bsac.eecs.berkeley.edu/archive/users/hvi-elliott/pdf/sacpaper.pdf>. pp 1-5 (unnumbered), (note page 2, Process Characterization, first paragraph).

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>	ATTY DOCKET NO. 100-23800 (P05751)	SERIAL NO. New
	Peter J. Hopper et al.	
	FILING Herewith	GROUP Unknown

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,362,683	11/08/94	Takenaka et al.	437	226	03/04/94
	5,739,067	04/14/98	DeBusk et al.	438	618	12/07/95
	5,250,460	10/05/93	Yamagata et al.	437	62	10/09/92
	6,110,825	08/29/00	Mastromatteo et al.	438	667	11/25/98
	6,187,677 B1	02/13/01	Ahn	438	667	08/22/97
	5,166,097	11/24/92	Tanielian	437	203	11/26/90
	6,221,769 B1	04/24/01	Dhong et al.	438	667	03/05/99
	6,249,136 B1	06/19/01	Maley	324	765	06/28/99
	5,627,106	05/06/97	Hsu	438	459	05/06/94
	5,426,072	06/20/95	Finnila	437	208	01/21/93
	6,252,300 B1	06/26/01	Hsuan et al.	257	686	03/01/99

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

			G. Stemme, "Fabrication of MEMS", [online], [retrieved on 2003-11-16], Retrieved from the Internet: <URL:http://mmadou.eng.vci.edu/PDF%20Files/Stemme%20Fabrication.pdf>. pp. 1-9 (unnumbered), (note page 3.)

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	FILING Herewith	GROUP Unknown

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,015,726	01/18/00	Yoshida	438	202	03/24/98
	5,702,976	12/30/97	Schuegraf et al.	437	67	10/24/95
	6,479,382 B1	11/12/02	Naem	438	658	03/08/01

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

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